THE STATUS OF OPERATIVE PROCEDURE AS A REMEDIAL AGENT FOR EPILEPSY.[1]

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NOTWITHSTANDING the advances made in the domain of cerebral pathology, the increase in precision in diagnosis as well as the power of more accurate limitation of focal lesions; notwithstanding the minute detail paid to surgical technique and the discovery of the necessity of cleanliness as a prime requisite for surgical success, the results of surgical work on the cerebrum and its coverings has not been as gratifying as we were at first led to believe. As far as the operatious themselves are concerned, viewed merely as operations, nothing can be said to diminish the brilliancy of the work attained in this field of surgery. The lack of success cannot be attributed to defective surgical methods, but must be placed where it belongs, upon the clinician. There is, it would appear, too strenuous a desire on the part of the clinician, to determine the accuracy of his skill in localizing cerebral function. To prove his skill he places in the hands of the surgeon cases which he thinks may be improved by operative interference.

It is too true that cerebral pathology has not kept pace with cerebral nosology. Diagnosis of a cerebral disease, particularly of the site of a cerebral lesion and defect is far easier than diagnosis of its nature, and this is especially true of that class of cases which is more frequently transferred to the surgeon than any other class of cerebral diseases. Of course, I refer to the cases of epilepsy, cortical and genuine.

Let me start out with this proposition: Surgical interference should not be countenanced or even suggested in cases where no absolute diagnosis as to the cause and nature of the epilepsy can be determined.

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[1] Read by title.

Can this diagnosis in the present state of our knowledge be determined in the majority of cases? I am inclined to believe, in fact, all of us who are acquainted with the difficulties most frankly and honestly confess, it cannot. Diagnosis, as a rule, in these conditions, is only problematical and conjectural.

How often has the diagnosis of a hæmorrhage or cyst involving the cortex or sub-cortical structure been made, and presented as the cause for the existing epilepsy? and how often has the removal of the cerebral coverings failed to reveal these expected conditions? Need I ask you to recall your individual experiences in similar cases to give the answer to these questions? Don't let us deceive ourselves in assigning to our own abilities more than the ordinary skill in diagnosis; for those who are credited with possessing more than the usual diagnostic acumen have been similar victims to the same diagnostic mistakes. And yet we ought not to designate these failures as mistakes. The knowledge of cerebral pathology is still too primitive to warrant definiteness in diagnosis. These failures are not mistakes, but simply lack of knowledge. Let us accept this and honestly face the question.

I shall concede to nobody a greater desire to benefit this deplorable class of patients, and yet my experience has proven to me the uselessness of surgical interference in these cases.

Of the fourteen craniotomies which I have seen performed in this class of cases, and of which the subsequent history has been followed, in only two could definite improvement be established. These two cases had the similar feature of traumatism as an etiological factor, and in both depression of bone existed. The other twelve cases included those in which a diagnosis of old hæmorrhage, of a pachymeningitis, of cystic degeneration of the cortex had been made, and in some of which the diagnosis could not be confirmed after removal of the bony vault, stripping back of the dura, or puncture by the exploring needle.

To justify the operation in these cases the argument has been advanced that an exploratory craniotomy is devoid of danger, and that the operation itself, when the pathological condition is not relieved or even not revealed, is ofttimes accompanied by improvement in the epilepsy.

This argument is not only fallacious but is contrary to general experience. Every surgeon knows that an exploratory operation is only too serious even when performed under the most stringent aseptic and antiseptic rules. It is needless to cite the dangers which arise and will continue to be present, or to mention the consequent damage to the cerebrum and the meninges. Is fatal meningitis under these conditions unknown? How often is the surgeon compelled to desist and suddenly stop the operation owing to the imminent danger of a fatal issue while the patient is still on the table?

I have seen this condition more than once. In fact, were the risk only a nominal or slight one, I am of the opinion that we are not justified by reason of the ill success attending upon the result of the operation to sanction it.

That temporary improvement occasionally occurs, there is no doubt. Cure is extremely rare. Temporary improvement occurs just as frequently where a medicinal agent or remedy is substituted for one which had been used before. Psychic influences also induce similar improvement, and it is a question whether the apparent success of medicinal substitution is not due more to the psychical influence than to the drug itself. The same may be said of operative procedure.

To my mind there could be but one justification for operation, and that is based on the old Spartan doctrine. Death is certainly a release to these unfortunates, and when it occurs prematurely it prevents the possibility and probability of a neuropathic and pathological progeny. But since all civilized nations regard such a doctrine as inhuman, cruel and barbarous, and since it is not legalized by any code, it cannot have recognition here.

Viewed from the basis of pure logic, to wit, our present knowledge regards the epileptic attacks as due to certain pathological conditions presenting themselves in the cerebrum or its coverings; if these conditions be removed or relieved the attacks must cease—it is a perfectly justifiable inference. We forget, however, that the question is not so simple; there are other factors involved which as yet we know nothing about. Nor must we forget that an insult to the brain may not be made with impunity; that when the pathological condition is removed, neighboring centres may take up such changes as to perpetuate the epileptic explosion or impulse; that the cicatrix resulting from a cortical excision may itself be the originator of a new epileptic disturbance.

The note of warning against surgical interference has been sounded in unmistakable accents by Lucas Championnière, in France, who, in ten craniotomies reported in the year of 1891, found no improvement in a single case; by von Bergmann and Jolly in Germany, and re-echoed in America by Starr. In the light of such authoritative opinions my protest need have little weight. German and French neurologists and surgeons are far more conservative in this matter than the English and American schools.

It is needless to cite individual cases which have been voluminously reported to demonstrate the position taken by the author. The literature in the past four years abounds with the reports of failures; such failures being almost immeasurably more numerous than successes. The lack of success is not to be wondered at when we reflect upon the numerous pathological conditions which give rise to focal or cortical epilepsies, such as periencephalitis, encephalitis, sclerotic patches, cystic degenerations, old hæmorrhages both congenital and post-natal, softening, cerebral syphilis, the entire group of tumors, the parasites such as cysticercus and echinococcus, conditions of which but the very fewest can be relieved by operative measures.

How often is the diagnosis of such conditions only fixed and learned after operations? and how often does opening of the skull fail to reveal any pathological defect?

On *a priori* grounds, cortical epilepsy should show better results from operative procedure than genuine or so called idiopathic epilepsy. There is no possible justification for operative interference in the latter cases unless they be regarded as secondary to some local pathological condition, an assumption which cannot in the present state of our knowledge be sustained, and which would immediately put these cases into the other category. It may be true that there is no genuine epilepsy and that this disease is the result of some focal pathological lesion which our defective and limited methods of research and observation have failed to reveal. So much the more reason then that operative treatment should be discontinued; for we have no right to operate to relieve a condition of which we know nothing positively.

There is, no doubt, a little benefit in conservatism;

it is not, it is true, accompanisd by the brilliant glamor of boldness, but it ruins nothing; it destroys nothing. It should accompany progress, not oppose it. This a rational conservatism does. Let us bear in mind the epigram "festina lente."

Dr. James Hendrie Lloyd presented an interesting case of

UNILATERAL SWEATING OF THE FACE.

A man in middle life, with hemiplegia of ten years standing, had developed unilateral facial hyperidrosis on the paralyzed side. The sweat constantly stood out on the forehead and face in large drops. There was no excessive sweating of the paralyzed arm or leg, or on the trunk. The sweating of the face was associated with enlargement of the palpebral orifice (possibly due to slight exophthalmos?) and *dilated* pupil. The physiology and pathology of the condition were discussed briefly. The phenomenon was thought to be due possibly to injury of some fibres of the sympathetic system from a lesion in the thalamus. The case will be published in detail.